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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/894,903	06/29/2001	Hong Bae Park	041501-5437	4657

9629 7590 09/05/2003

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EXAMINER

PHINNEY, JASON R

ART UNIT	PAPER NUMBER
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2879

DATE MAILED: 09/05/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/894,903

Applicant(s)

PARK, HONG BAE

Examiner

Jason Phinney

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 June 2003.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 17-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 June 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6. 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. The Amendment, filed on 6/12/03, has been entered and acknowledged by the Examiner.

Election/Restrictions

2. Applicant's affirmation of the election made without traverse of Claims 1-16 in Paper No. 7 is acknowledged. Applicant is advised to cancel any claims drawn to the non-elected invention.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 3, 4, 8, 9, and 11-15 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by WO 92/02947 to Lynn.

Regarding Claim 1, Lynn discloses a flat luminescent lamp comprising first and second substrates (Figures 7 and 8, #'s 132 and 134) having a plurality of grooves therein attached to each other at a plurality of adhesive portions ('s 136 and 138), with a plurality of discharge spaces (Figure 8, #150 and 152) in the grooves between the first and second substrates, first and second electrodes (#154) arranged in the discharge spaces to be separated from each other, first

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and second phosphor layers formed in the discharge spaces (Page 12, Lines 10-12), and first and second frames (#155 and 156) sealing the first and second substrates.

Regarding Claim 3, Lynn further discloses that the plurality of discharge spaces should be formed along a vertical direction of the first and second substrates (see Figure 7).

Regarding Claim 4, Lynn further discloses that the first and second frames should be formed along a horizontal direction of the first and second substrates (see Figure 7).

Regarding Claim 8, Lynn further discloses that the plurality of discharge spaces should each have a round shape or a polygon shape close to a round shape (see Figure 8, #152).

Regarding Claim 9, Lynn further discloses that the first and second substrates should each comprise a glass material (Page 11, Lines 3-4).

Regarding Claim 11, Lynn further discloses that the first and second electrodes should be formed along the discharge spaces (see Figure 7, #154).

Regarding Claim 12, Lynn further discloses that the plurality of discharge spaces should have a stripe shape (see Figure 7).

Regarding Claim 13, Lynn further discloses that the plurality of discharge spaces should be spaced apart from each other (see Figures 7 and 8).

Regarding Claim 14, Lynn further discloses that the first electrode should include two or more separate electrodes (see Figure 7, #154).

Regarding Claim 15, Lynn further discloses that the first frame should be attached to the second substrate along one side of the first substrate while the second frame should be attached to the first substrate along a side of the second substrate that is not attached to the first frame

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(See Figure 7, frame #'s 155 and 156 on both sides are attached to both substrates #'s 132 and 134).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over WO 92/02947 to Lynn in view of U.S. Patent No. 4,767,965 to Yamano.

Lynn discloses all of the limitations of Claim 1 as described above.

Regarding Claim 2, Lynn fails to exemplify that there should be a reflecting material layer formed in the discharge spaces adjoining the first substrate.

Yamano teaches that there should be a reflecting material layer formed in the discharge spaces adjoining the first substrate (Figure 10, #50) in order to better direct the light emitted.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to form the lamp of Lynn with a reflecting layer as taught by Yamano in order to better direct the light emitted.

5. Claims 5, 6, and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 92/02947 to Lynn in view of Japanese Patent Publication No. 8-162069 to Go.

Lynn discloses all of the limitations of Claim 1 as described above.

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Regarding Claim 5, Lynn fails to exemplify that the first electrode should include a transparent conductive material.

Regarding Claim 6, Lynn fails to exemplify that the transparent conductive material should include indium tin oxide.

Regarding Claim 7, Lynn fails to exemplify that the lamp should further comprise a first dielectric layer formed in the discharge spaces adjoining the first substrate and a second dielectric layer formed in the discharge spaces adjoining the second substrate.

Go, in an alternate flat luminescent lamp teaches that indium tin oxide is commonly used as a transparent conductor due to its favorable optical and electrical properties (see Example, Paragraph 1). Go further teaches that a first dielectric layer should be formed in the discharge spaces adjoining the first substrate and a second dielectric layer should be formed in the discharge spaces adjoining the second substrate (Figure 1, #4) in order to insulate the electrodes from the fluorescent phosphor layer to prevent unintentional lighting.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to use the ITO and dielectric layers taught by Go in the flat luminescent lamp of Lynn in order to take advantage of ITO's optical and electrical properties and to separate the electrodes from the phosphor layers to prevent unintentional discharge.

6. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over WO 92/02947 to Lynn in view of U.S. Patent No. 3,873,870 to Fukushima.

Lynn discloses all of the features of Claim 1 as described above.

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Regarding Claim 10, Lynn fails to exemplify that the first substrate should comprise a ceramic material but does teach that the second substrate comprises a glass material (Page 11, Lines 3-4).

Fukushima teaches that the first substrate should comprise a ceramic material while the second substrate comprises a glass material (Column 4, Lines 13-17) because of its thermal expansion.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to form the first substrate of Lynn with the ceramic material taught by Fukushima because of its thermal expansion.

7. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over WO 92/02947 to Lynn in view of U.S. Patent No. 5,341,231 to Yamamoto.

Lynn discloses all of the features of Claim 1 as described above.

Lynn fails to exemplify that there should be a diffusion sheet formed at a rear side of the second substrate.

Yamamoto teaches that there should be a diffusion sheet formed at a rear side of the second substrate in order to enhance the uniformity of light (Column 18, Lines 39-42).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to use the diffusion sheet taught by Yamamoto in the lamp of Lynn in order to enhance the uniformity of the light.

Response to Arguments

8. Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason Phinney whose telephone number is (703) 305-3999. The examiner can normally be reached on M-F 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on (703) 305-4794. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

JP



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